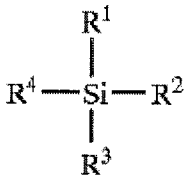
AMENDMENTS TO THE CLAIMS

1.-14. (cancelled)

15. (currently amended) A curable sealant composition comprising the reaction product of:

a) a polymer comprising conjugated diene monomer units in a backbone of said polymer, and

b) a silicon containing functional group[[,]] of the structure:



wherein R^1, R^2, R^3, and R^4 are independently selected from the group consisting of hydrocarbon, alkoxy groups, and mixtures thereof,

wherein at least one of R^1, R^2, R^3, and R^4 comprises an alkoxy group selected from the group consisting of methoxy, ethoxy, propoxy, butoxy, pentoxy, and mixtures thereof,

wherein said functional group forms a terminal group on said polymer and further wherein the polymer has a 1,2-microstructure content of about 40-70%, a weight average molecular weight (M_w) of about 10,000-60,000 and a polydispersity of less than about 1.8.

16. (previously presented) The composition of claim 15 wherein said conjugated diene contributed monomer units are selected from the group consisting of 1,3-butadiene, isoprene, 1,3-pentadiene, 2,3-dimethyl-1,3-butadiene, 1,3-hexadiene, 2-methyl-1,3-pentadiene, 3,4-dimethyl-1,3-hexadiene, 4,5-diethyl-1,3-octadiene, 3-butyl-1,3-octadiene, phenyl-1,3-butadiene, and mixtures thereof.

17. (previously presented) The composition of claim 15, wherein the polymer backbone further

includes additional monomer units selected from the group consisting of vinyl aromatic hydrocarbon monomers, ethylene oxide, propylene oxide, styrene oxide, ethylene sulfide, propylene sulfide, styrene sulfide, acetaldehyde, propionaldehyde, isobutyraldehyde, n-caproaldehyde, acetthioaldehyde, propionthioaldehyde, isbutyrthioaldehyde, n-caprothioaldehyde, 3-dimethyl-oxycyclobutane, 3-diethyloxycyclobutane, 3-methylethyl-oxycyclobutane, 3-diemethylthiocycylobutane, 3-diethyl-thiocyclobutane, 3-methylethylthiocyclobutane, methylethyl thioketone, methyl isopropyl thioketone and diethyl thioketone, heterocyclic nitrogen containing monomers, and mixtures thereof.

18. (previously presented) The composition of claim 15 wherein said polymer backbone further includes at least one initiator residue.

19. (previously presented) The composition of claim 18 wherein said initiator residue is derived from a multi-functional initiator.

20. (cancelled)

21. (cancelled)

22. (currently amended) The composition of claim [[20]] 15 wherein said hydrocarbon group(s) are selected from the group consisting of methyl, ethyl, propyl, butyl, pentyl-, hexyl-, heptyl-, octyl, nonyl-, decyl-, and mixtures thereof.

23. (previously presented) The composition of claim 15, further comprising one or more randomizing modifiers to control the 1,2-microstructure content of the composition.

24. (previously presented) The composition of claim 23, wherein the one or more randomizing modifiers is selected from the group consisting of hexamethylphosphoric acid triamide, N,N,N',N'-tetramethylethylene diamine, ethylene glycol dimethyl ether, diethylene glycol dimethyl ether, triethylene glycol dimethyl ether, tetraethylene glycol dimethyl ether, tetrahydorfuran, 1,4-diazabicyclo octane, diethyl ether, triethylamine, tri-n-butylamine, tri-n-butylphosphine, p-dioxane, 1,2-dimethoxy ethane, dimethyl ether, methyl ethyl ether, di-n-propyl ether, di-n-octyl ether, anisole, dibenzyl ether, dimethyl aniline, N-ethylpiperidine, N-methyl-N-ethyl aniline, N-methylmorpholine tetramethylenediamine,

oligomeric oxolanyl propanes (OOPS), 2,2-bis-(4-methyl dioxane), bistetrahydrofuryl propane and mixtures thereof.

25. (previously presented) The composition of claim 15, wherein the weight average molecular weight or (M_w) is between 10,000 and 35,000.

26. (previously presented) The composition of claim 15, further comprising one or more additional sealant ingredients selected from the group consisting of plasticizers, fillers, reinforcing agents, modifiers, curing catalysts/hardeners, stabilizers, and mixtures thereof.

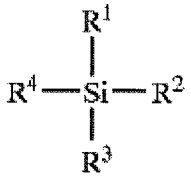
27. (previously presented) The composition of claim 15, wherein said sealant is curable upon exposure to moisture.

28. (currently amended) A process for forming a curable sealant comprising:

a) forming a polymer having a 1,2-microstructure content of about 40-70%, a weight average molecular weight (M_w) of about 10,000-60,000, and a polydispersity of less than 1.8 by

i) initiating a living polymerization of conjugated diene monomers with a multi-functional initiator present in an amount of about 0.001 to 0.1 moles per 100 grams conjugated diene monomer, and

ii) terminating said polymerization with a tetra-substituted silicon <u>containing functional group of the structure:</u>



<u>to produce a polymer having a terminal silicon-containing group,</u>

wherein R^1, R^2, R^3, and R^4 are independently selected from the group consisting of hydrocarbon, alkoxy groups, and mixtures thereof,

wherein at least one of R^1, R^2, R^3, and R^4 comprises an alkoxy group selected from the group consisting of methoxy, ethoxy, propoxy, butoxy, pentoxy, and mixtures thereof, and

[[c]] b) combining the polymer having a terminal silicon-containing group with one or more sealant ingredients selected from the group consisting of plasticizers, fillers, reinforcing agents, modifiers, curing catalysts/hardeners, stabilizers, and mixtures thereof.

29. (previously presented) The process of claim 28 wherein said conjugated diene monomers are selected from the group consisting of 1,3-butadiene, isoprene, 1,3-pentadiene, 1,3-butadiene, isoprene, 1,3-pentadiene, 2,3-dimethyl-1,3-butadiene, 1,3-hexadiene, 2-methyl-1,3-pentadiene, 3,4-dimethyll-1,3-hexadiene 4,5-diethyl-1,3-octadiene, 3-butyl-1,3-octadiene, phenyl-1,3-butadiene, and mixtures thereof.

30. (previously presented) The process of claim 28 wherein said living polymerization includes additional monomer units.

31. (previously presented) The process of claim 30 wherein said additional monomer units are selected from the group consisting of vinyl aromatic hydrocarbon monomers, ethylene oxide, propylene oxide, styrene oxide, ethylene sulfide, propylene sulfide, styrene sulfide, acetaldehyde, propionaldehyde, isobutyraldehyde, n-caproaldehyde, acetthioaldehyde, propionthioaldehyde, isbutyrthioaldehyde, n-caprothioaldehyde, 3-dimethyl-oxycyclobutane, 3-diethyloxycyclobutane, 3-methylethyl-oxycyclobutane, 3-diemethylthiocycylobutane, 3-diethyl-thiocyclobutane, 3-methylethylthiocyclobutane, methylethylthioketone, methyl isopropyl thioketone and diethyl thioketone, heterocyclic nitrogen containing monomers, and mixtures thereof.

32. (cancelled)

33. (cancelled)

34. (currently amended) The process of claim [[32]] 28 wherein said hydrocarbon groups are selected from the group consisting of methyl, ethyl, propyl, butyl, pentyl-, hexyl-, heptyl-, octyl, nonyl-, decyl-, and mixtures thereof.

35. (previously presented) The process of claim 28, wherein the polymer has a weight average molecular weight of about 10,000-35,000.

36. (cancelled)

37. (cancelled)